

WHAT IS CLAIMED IS:

1. A miter box comprising:

a housing having a top surface and a plurality of supporting side walls forming an enclosure,

an elongated opening being formed in the top surface of the housing near a first of the supporting side walls,

a work-holding member having a first end, the work-holding member being connected to the top surface of the housing such that the work-holding member may be slidably moved with respect to the top surface of the housing to dispose the first end of the work holding member at a selected angle with respect to the elongated opening in the top surface of the housing,

a plurality of spaced-apart support means disposed in the enclosure under, and approximately parallel to, the elongated opening in the top surface of the housing,

an electrically-powered motor supported on the support means in the enclosure,

a cutting means driven by the electrically-powered motor, the cutting means projecting upwardly into the elongated opening in the top surface of the housing, and

means to move the electrically-powered motor with the cutting means longitudinally within the elongated opening, wherein a workpiece disposed in the work-holding member and extending over the elongated opening is cut at a predetermined angle corresponding to the selected angle of the work-holding member with respect to the elongated opening.

2. The miter box of claim 1, further comprising a rod connected to the electrically-powered motor, the rod extending out of the housing, wherein movement of the rod produces

longitudinal movement of the electrically-powered motor such that the cutting means is moved longitudinally with respect to the workpiece.

3. The miter box of claim 1, further comprising means to move the cutting means at a selected angle with respect to a vertical plane through the elongated opening in the top surface, wherein the workpiece extending over the elongated opening is cut at a predetermined angle corresponding to the selected angle of the cutting means such that the workpiece is beveled.

4. The miter box of claim 3, wherein the support means for the electrically-powered motor are mounted between two spaced-apart plates, the plates being rotatable at the selected angle about the vertical plane with respect to the elongated opening such that the cutting means is moved at the corresponding selected angle.

5. The miter box of claim 1, wherein the cutting means is a circular saw blade.

6. The miter box of claim 1, wherein the cutting means is a cutting drill bit.

7. The miter box of claim 1, wherein the work-holding member has a channel shape with open ends such that the workpiece may be held in the work-holding member, without restriction on a length of the workpiece.

8. The miter box of claim 1, further comprising a protector removably disposed over the elongated opening in the top surface of the housing wherein debris from the cutting is directed downwardly through the elongated opening.

9. The miter box of claim 8, wherein the protector has at least a transparent portion providing viewing of the cutting means.

10. The miter box of claim 8, further comprising a vacuum source connected to the housing wherein debris from the cutting is removed from the housing.

11. The miter box of claim 1, further comprising the top surface of the housing having at least two spaced-apart curved tracks thereon, the work-holding member having at least two spaced-apart protrusions extending from a bottom surface of the work-holding member,

the respective protrusions being received in the respective tracks such that the work-holding member is slidably moved and guided by the respective tracks and the work-holding member be disposed at the selected angle with respect to the elongated opening on the top surface of the housing.

12. The miter box of claim 11, wherein the tracks are cut-out portions in the top surface of the housing.

13. The miter box of claim 1, wherein the tracks are raised channels extending above the top surface of the housing.

14. In a power-driven saw machine for making a miter cut, a bevel cut, or a compound miter-bevel cut in a workpiece, wherein the machine includes a housing, a motor within the housing, and a cutting means driven by the motor and projecting above the housing; the improvement comprising a support means within the housing for supporting the motor for movement within the housing, the motor being pivotably disposed with respect to a vertical plane through the housing and being arranged at a desired angular relationship relative to the vertical plane whenever a bevel cut of the workpiece is intended, and a rod connected to the motor and having an end portion projecting externally of the housing, such that the end portion of the rod may be manually manipulated for

moving the motor along the support means within the housing for making a cut in the workpiece, the workpiece being supported on top of the housing and being arranged at an angular relationship relative to the cutting means whenever a miter cut of the workpiece is intended.

15. A miter box comprising:

a housing having a top surface, an elongated opening formed in the top surface,  
at least two spaced-apart curved tracks formed on the top surface of the housing,  
a work-holding member having a bottom surface,

at least two spaced-apart protrusions formed on the bottom surface of the work-holding means,

each of the at least two spaced-apart protrusions being received in a respective track on the top surface of the housing,

wherein the work-holding member may be slidably moved and guided to a selected angle with respect to the elongated opening on the top surface of the housing.